

IV. REMARKS

A. Status of the Application

Claims 1 and 33-51 are pending herein.

B. Obviousness-Type Double Patenting Rejections

A Terminal Disclaimer in compliance with 37 C.F.R. § 1.321(c) is filed concurrently herewith including the disclaimer fee.

Claims 1 and 47-51 stand rejected under the judicially created doctrine of obviousness-type double patenting over the claims of U.S. Patent Nos. 6,595,870, 6,450,897, 6,280,348 and 6,077,173 in view of U.S. Patent No. 5,547,194 to Aizawa ("Aizawa '194").

Claims 33-51 stand rejected under the judicially created doctrine of obviousness-type double patenting over claims 7-20 of U.S. Patent No. 6,595,870 in view of U.S. Patent No. 5,014,993 to Antonious ("Antonious '993")

Applicants submit herewith a Terminal Disclaimer in compliance with 37 C.F.R. § 1.321(c) including the disclaimer fee which is effective to overcome the obviousness-type double patenting rejections over the above-mentioned patents. Also submitted herewith is a Statement Under 37 C.F.R. § 3.73(b) wherein the assignee of this application is seeking to take action in this application.

The filing of the Terminal Disclaimer is believed to overcome the obviousness-type double patenting rejections of claims 1 and 33-51 and it is therefore requested that they be withdrawn.

C. Rejections Under 35 U.S.C. § 103(a)

Claims 1 and 47-51 stand rejected under 35 U.S.C. §103(a) over Antonious '993 or Aizawa '194 in view of U.S. Patent No. 4,826,172 to Antonious ("Antonious '172"). Insofar as it may be applied against the present claims, this rejection is respectfully traversed.

According to MPEP § 2142, to establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references must teach or suggest all the claim limitations. In the

present case, none of the criteria set forth in MPEP § 2142 have been satisfied with respect to independent claim 1 or the claims dependent thereon.

Claim 1 is drawn to an iron-type golf club head comprising:

a face including a golf-ball-striking surface with a center portion, the face having an opposing rear surface;

a heel having an upwardly extending hosel for receiving one end of an elongated shaft;

a toe opposite and taller in height than the heel, the face being interposed the toe and the heel;

a sole interposed the heel and the toe and disposed below the face;

a top-line interposed the heel and the toe and superposed the sole and the face;

a back opposite the face and having a cavity extending toward the face;

a peripheral belt surrounding the cavity of the back and including a toe perimeter portion, a heel perimeter portion, a sole perimeter portion, a top-line perimeter portion and junction perimeter portions interposed adjacent ones of the toe, heel, sole and top-line perimeter portions, wherein a majority of the weight of the club head is disposed within the peripheral belt; and

a single bridge member superposed a portion of the cavity, spaced away from the rear surface of the face, and disposed along a plane defining the back, the bridge member comprising a first end attached to one of the top-line, heel, toe, sole and junction perimeter portions and a second end attached to one of the top-line, heel, toe, sole and junction perimeter portions;

wherein the trajectory of a ball struck by the center of the golf ball-striking surface of the face is influenced by the location of the center of mass of the bridge member relative to the center of mass of the club head absent the bridge member.

Applying the criteria set forth in MPEP § 2142, Applicants submit that none of Antonious '993, Aizawa '194 or Antonious '172, alone or in combination discloses or suggests all of the subject matter of claim 1, nor the claims dependent thereon, namely, claims 47 - 51.

The claims now presented with this amendment are believed to distinguish patentably over the disclosures of Antonious '993, Aizawa '194 and Antonious '172. In particular, the club head set forth in claim 1 is directed to a combination in a golf club wherein a single bridge member having first and second ends is attached to a perimeter belt of the club head in selected combinations of attachment points which provide a unique improvement in club performance by placing the center of mass of the bridge member in a predetermined location different from the location of the center

of mass of the club head without the bridge member whereby the trajectory of a ball struck by the center of the ball striking surface of the club face is influenced by the location of the center of mass of the bridge member relative to the center of mass of the club head without the bridge member.

In at least the above-noted respects, the claims are believed to clearly distinguish patentably over the disclosures of Antonious '993, Aizawa '194 and Antonious '172. With regard to the disclosure of Antonious '993, this patent discloses an iron-type golf club with a cavity in the back of the club head and various arrangements of a secondary weight system, all of which are disposed about the center of gravity (CG) of the club head to maximize energy transfer between the club head and a golf ball.

Antonious '993 does not disclose or suggest the provision of a single bridge member attached at its opposite ends to a peripheral belt portion of the club head in a combination selected from the group set forth in the claims now presented in this application for the purpose of influencing the trajectory of the ball other than it would be influenced if the bridge member was not present. Antonious '993 suggests concentrating the weight or mass of the club head at the center of gravity or in areas where a golf ball is most often mis-hit thereby increasing the potential for the ball to go further and straighter when struck off of the center of gravity of the club head. This is not the purpose of the club head set forth in the claims now pending in this application.

Aizawa '194 is directed to a configuration of a golf club head which can enhance the rigidity of the ball contact surface by placing rib shaped support portions (35, 55 and 116) across a cavity in the back of the club head and formed integral with the club face part or plate (41). In the embodiment of Figures 5 through 7 of Aizawa '194, a rib shaped support portion (57) is also provided integral with the head main body, in contact with the plate (41) and does not influence the location of the "sweet spot" or center of gravity in the sense required by the claims of this application. With regard to the embodiment of Figures 8 through 10 of Aizawa '194, a rib shaped support portion (75) is described as being disposed to pass through the so-called sweet spot (P). However, Aizawa '194 does not contemplate modifying the position of the sweet spot by the location of the rib shaped support (75). In fact, none of the embodiments of Aizawa '194, including the rib shaped support portions (93 and 95) of the embodiment of Figures 11 and 12, and the rib shaped support portion (115) of the embodiment of Figures 13 through 15 are arranged such that they influence the location of the sweet spot in the manner required by the claims of this application.

Claim 1 is directed to a club head wherein, in accordance with the placement of the bridge member, a club or set of clubs can be corrected for the tendency for a player to hit the ball in a trajectory other than what is desired. Accordingly, a player's tendency to hit the ball in a particular direction would be offset by providing a club or set of clubs with a bridge member located such as to cause the trajectory of the ball to be corrected for the player's swing tendencies, for example. This is not taught, suggested, motivated or contemplated by any of the references of record, including Antonious '993 and Aizawa '194. Accordingly, claim 1 distinguishes in a patentable sense over each of Antonious '993 and Aizawa '194.

Antonious '172 fails to provide the above-noted deficiencies of Antonious '993 and Aizawa '194 with respect to the club head of claim 1. Specifically, Antonious '172 requires at least two opposing weight members extending from an inner rear surface behind the ball striking head with each weight member having two opposing points of attachments to an outer peripheral mass. Further, Antonious '172 requires that the at least two opposing weight members be disposed on opposite sides of the center of percussion of the ball striking face. Antonious '172 does not disclose or suggest a club head having a single bridge member having first and second ends each of which can be attached at any location of the peripheral mass regardless of the disposition of the bridge member relative to the center of percussion of the ball striking face.

Contrary to the claimed club head, the combination of the disclosure of Antonious '172 with either of Antonious '993 or Aizawa '194 would still fail to disclose or suggest a club head having a single bridge member. Accordingly, Antonious '172 does not supply the above-noted deficiencies of Antonious '993 and Aizawa '194 with respect to the claimed club head. Therefore, even if Antonious '172 was properly combinable with either of Antonious '993 or Aizawa '194, the combination would not teach, suggest or motivate the claimed subject matter.

As none of Antonious '993, Aizawa '194 or Antonious '172, alone or in combination, discloses or suggests all of the elements of claim 1, the third criteria of a prima facie case of obviousness has not been met with respect to claim 1. Because one of the criteria has not been met, a prima facie case of obviousness has not been made.

Furthermore, there is no suggestion or motivation to modify Antonious '993, Aizawa '194 or Antonious '172 to include the missing subject matter noted above. There is also no suggestion or motivation to combine any of the applied references. Even if there were a suggestion or motivation to combine the references, the resulting combination would not teach, suggest or motivate the club

head of claim 1, because as noted above, the combination would still fail to disclose or suggest a club head having a single bridge member. In view of the foregoing, there could be no reasonable expectation of success for modifying or combining the references.

Applicants submit that a prima facie case of obviousness over Antonious '993 or Aizawa '194 in view of Antonious '172 has not been made with respect to claim 1 because none of the three criteria of the prima facie case has been satisfied. Applicants further submit that the prima facie case also fails with respect to claims 47-51, each of which depends from claim 1, for at least the same reasons as apply to claim 1.

In view of the foregoing, Applicants respectfully request that the rejection of claims 1 and 47-51 under 35 U.S.C. § 103(a) over Antonious '993 or Aizawa '194 in view of Antonious '172 be withdrawn.

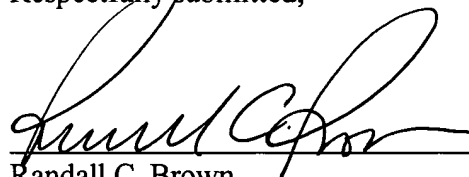
D. Conclusion

It is believed that all matters set forth in the Office action have been addressed. Applicant has made a diligent effort to advance the prosecution of this application by amending claim 1 and by submitting arguments in support of the patentability of claims 1 and 47-51.

In light of the foregoing amendments and remarks, Applicant submits that Claims 1 and 33-51 are in condition for allowance, and an early formal notice of allowance of claims 1 and 33-51 is respectfully requested. Should the Examiner have any questions, he is invited to telephone the undersigned at the telephone number listed below.

Respectfully submitted,

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Randall C. Brown
Registration No. 31,213
Attorney for Applicants

HAYNES AND BOONE, L.L.P.
901 Main Street, Suite 3100
Dallas, Texas 75202-3789
Tel: (214) 651-5242
Fax: (214) 200-0853